A Tour of the Messier Catalog

~~ in ~~

Eight Spellbinding and Enlightening Episodes

~~ This Being Episode Seven ~~

One Last Slice of Summer Pie

Set View Time Help

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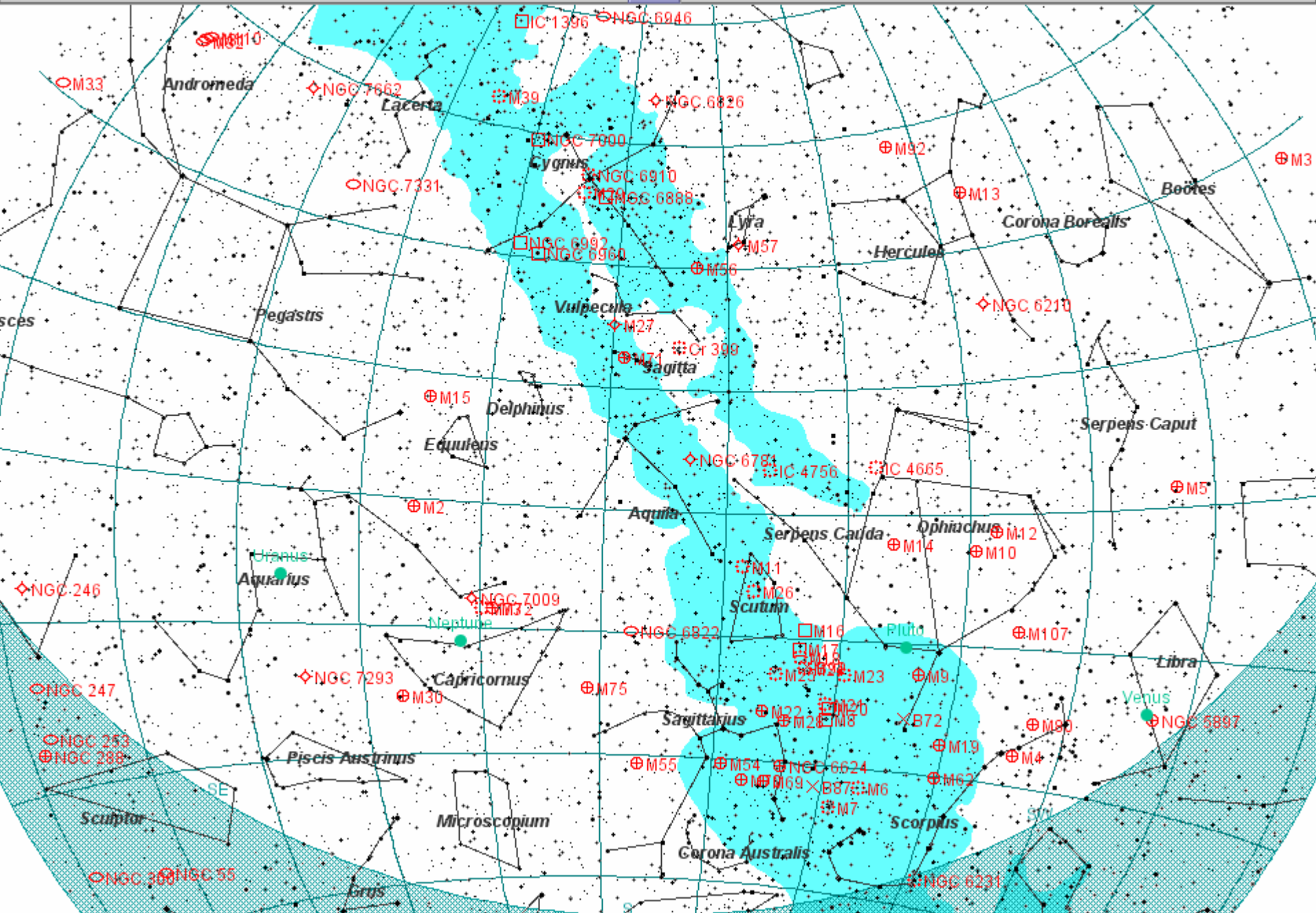

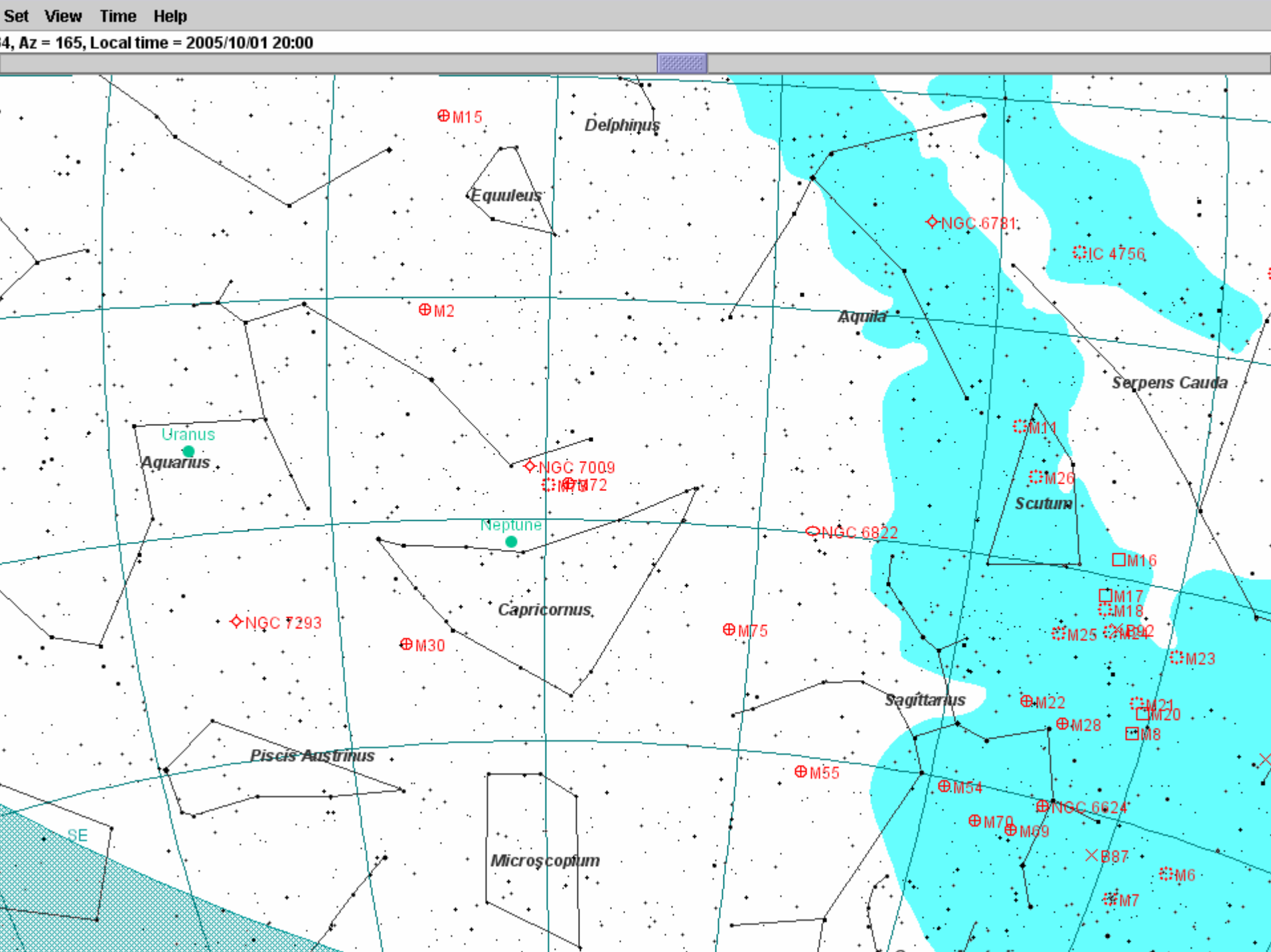
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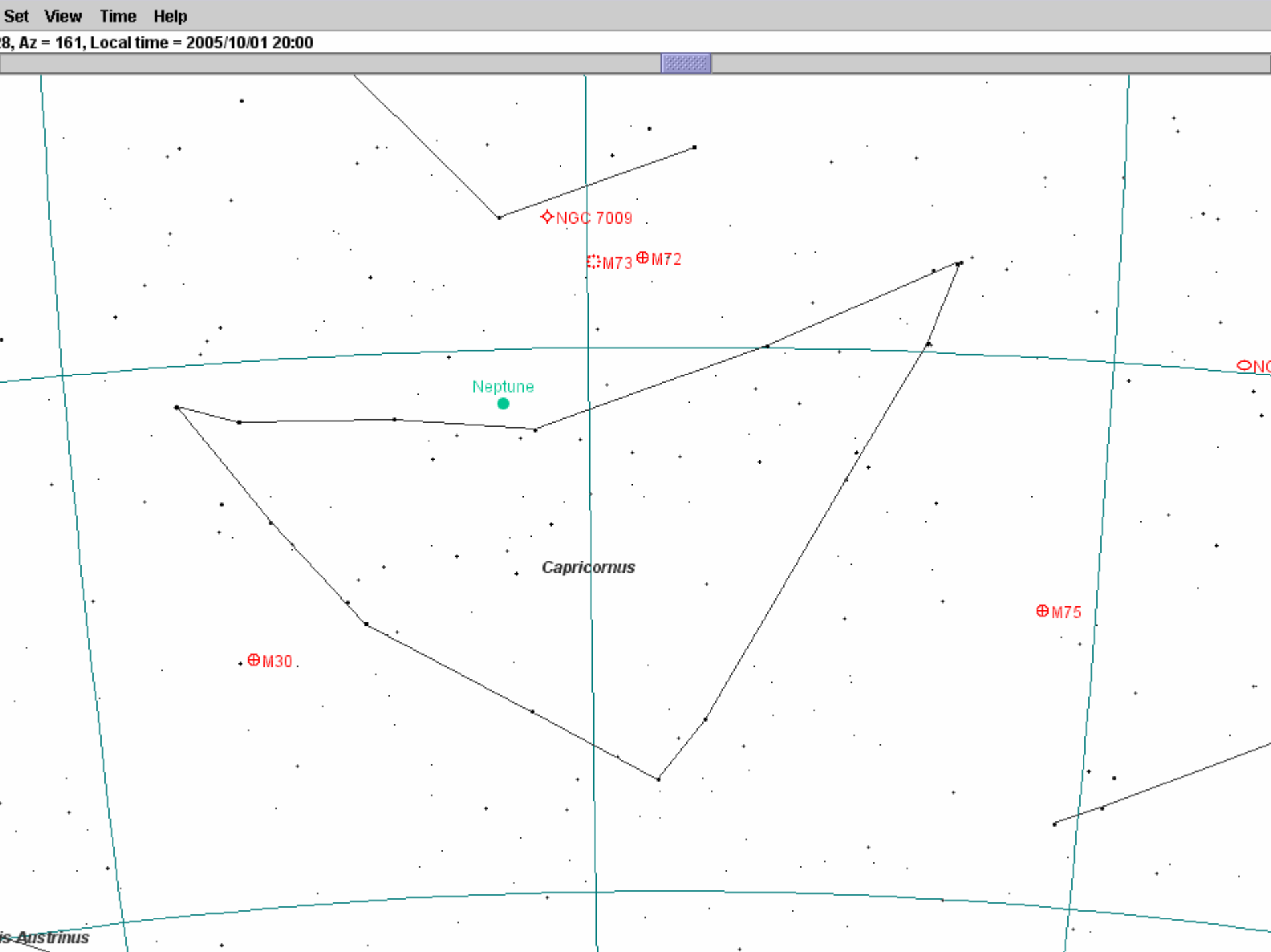
M15
Delphinus
Equuleus
NGC 6781
IC 4756
M2
Aquila
Serpens Cauda
Uranus
Aquarius
NGC 7009
M72
M11
M26
Scutum
Neptune
NGC 6822
M16
M17
M18
Capricornus
NGC 7293
M30
M75
M25
M23
Sagittarius
M22
M21
M20
M28
M8
Piscis Austrinus
M55
M54
NGC 6624
M70
M69
B87
M6
M7
Microscopium
SE


Set View Time Help
8, Az = 161, Local time = 2005/10/01 20:00
NGC 7009
M73
M72
Neptune
Capricornus
M75
M30
is Australis

M75 – Globular Cluster
Constellation – Sagittarius

NOAO/AURA/NSF

Right Ascension	20 : 06.1 (h:m)
Declination	-21 : 55 (deg:m)
Distance	67.5 (kly)
Visual Brightness	8.5 (mag)
Apparent Dimension	6.8 (arc min)

- May be the most remote Messier globular cluster
- Small, with a very condensed core
- Herschel described it as a ‘miniature of M3’

M30 – Globular Cluster
Constellation – Capricorn

NOAO/AURA/NSF

Right Ascension	21 : 40.4 (h:m)
Declination	-23 : 11 (deg:m)
Distance	26.1 (kly)
Visual Brightness	7.2 (mag)
Apparent Dimension	12.0 (arc min)

- Nice cluster with a fairly dense core
- Diameter of about 90 LY
- Located next to the bright star 41 Capricorni, which is a double star of 5.5” sep., mags 5.5 and 12

M72 – Globular Cluster
Constellation – Aquarius

Brian Kimball

Right Ascension	20 : 53.5 (h:m)
Declination	-12 : 32 (deg:m)
Distance	55.4 (kly)
Visual Brightness	9.3 (mag)
Apparent Dimension	6.6 (arc min)

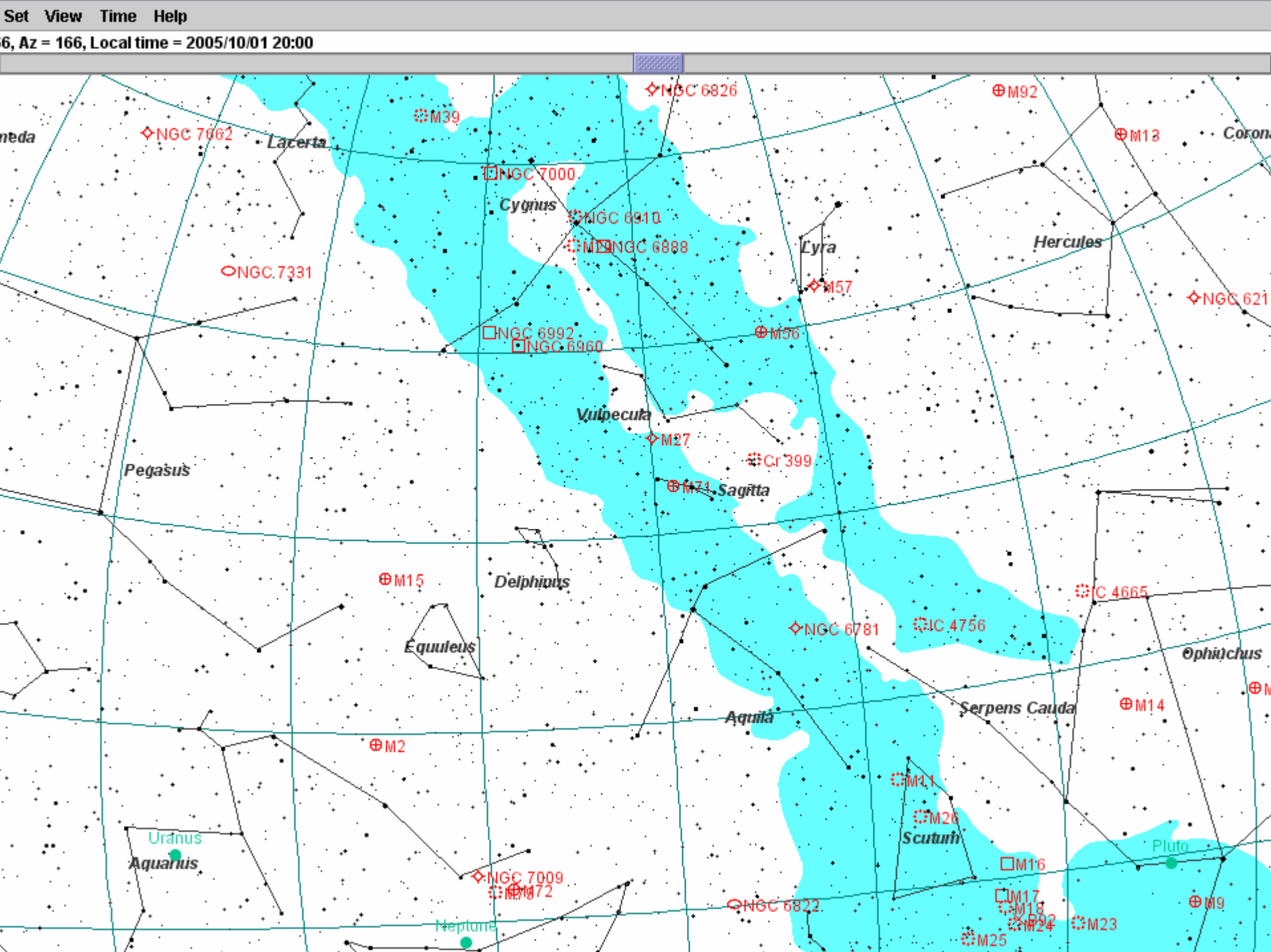
- Quite loose for a globular cluster
- Somewhat dim and quite far away
- Fairly even brightness across its face
- Approaching us rapidly at 255 km/sec

M73 – 4 Star Asterism
Constellation – Aquarius

NOAO/AURA/NSF

Right Ascension	20 : 58.9 (h:m)
Declination	-12 : 38 (deg:m)
Distance	2.5 (kly)
Visual Brightness	9.0 (mag)
Apparent Dimension	2.8 (arc min)

- 1 ½ degrees east of M72
- Simply an asterism of 4 stars, catalogued by Messier the same time as M72
- Still not known if these are actually physically bound as a ‘mini-cluster’, or just a line-of-sight asterism!
- Don’t miss the cool ‘Saturn Nebula’ - NGC7009 - about 2 degrees to the NE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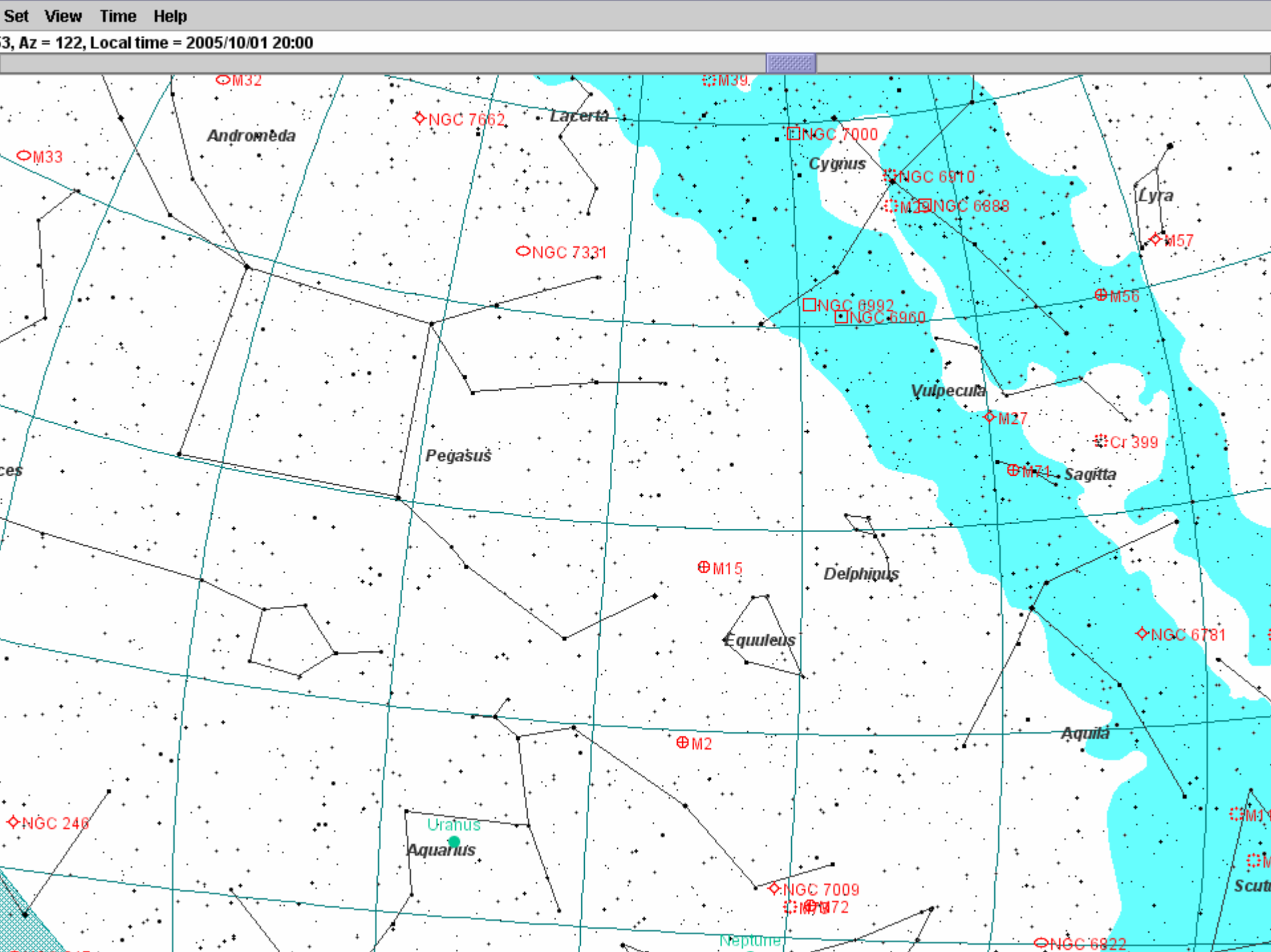
NGC 6826
M92
M39
NGC 7662
Lacerta
M13
NGC 7000
Cygnus
NGC 6810
NGC 6888
Lyra
Hercules
NGC 7331
M57
NGC 621
NGC 6992
NGC 6960
M56
Vulpecula
M27
Cr 399
Pegasus
M71
Sagitta
M15
Delphinus
IC 4665
NGC 6781
IC 4756
Equuleus
Ophiuchus
Serpens Cauda
M14
Aquila
M2
M11
M26
Scutum
Uranus
Aquarius
Pluto
M16
NGC 7009
M72
M17
M18
M9
NGC 6822
M24
M23
Neptune
M25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M32
M39
NGC 7662
Lacerta
Andromeda
M33
NGC 7000
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NGC 6910
M29
NGC 6888
Lyra
M57
NGC 7331
M56
NGC 6992
NGC 6960
Vulpecula
M27
Cr 399
M71
Sagitta
Pegasus
M15
Delphinus
Equuleus
NGC 6781
M2
Aquila
NGC 246
Uranus
Aquarius
NGC 7009
M72
Neptune
NGC 6822
Scut

M2 – Globular Cluster
Constellation – Aquarius

NOAO/AURA/NSF

Right Ascension	21 : 33.5 (h:m)
Declination	-00 : 49 (deg:m)
Distance	37.5.0 (kly)
Visual Brightness	6.5 (mag)
Apparent Dimension	16.0 (arc min)

- Nice big, bright cluster
- Rich and compact
- Lies almost directly beneath the South Pole of the Milky Way!
- Contains about 150,000 stars
- Easy to pick out with binoculars and above – even more so because it lies in a relatively sparse part of the sky

M15 - Globular Cluster
Constellation – Pegasus

NOAO/AURA/NSF

Right Ascension	21 : 30.0 (h:m)
Declination	+12 : 10 (deg:m)
Distance	33.6 (kly)
Visual Brightness	6.2 (mag)
Apparent Dimension	18.0 (arc min)

- A personal favorite of yours truly!
- Large, bright, rich and easy to find
- Located half again as far on a line from Biham to Enif – the red star that marks the nose of Pegasus
- M15 is a strong X-ray source
- Slightly elliptical in shape

Set View Time Help

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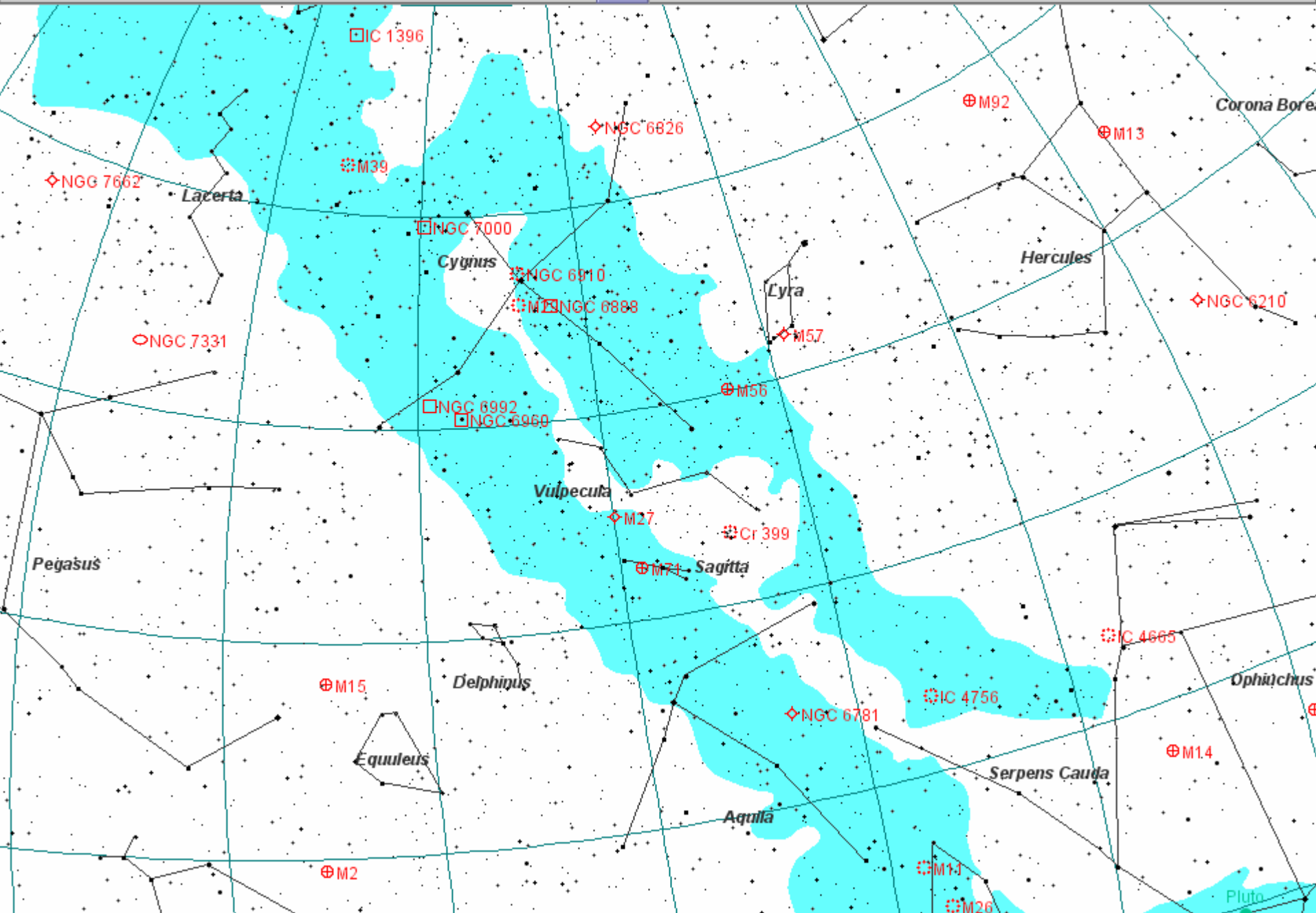

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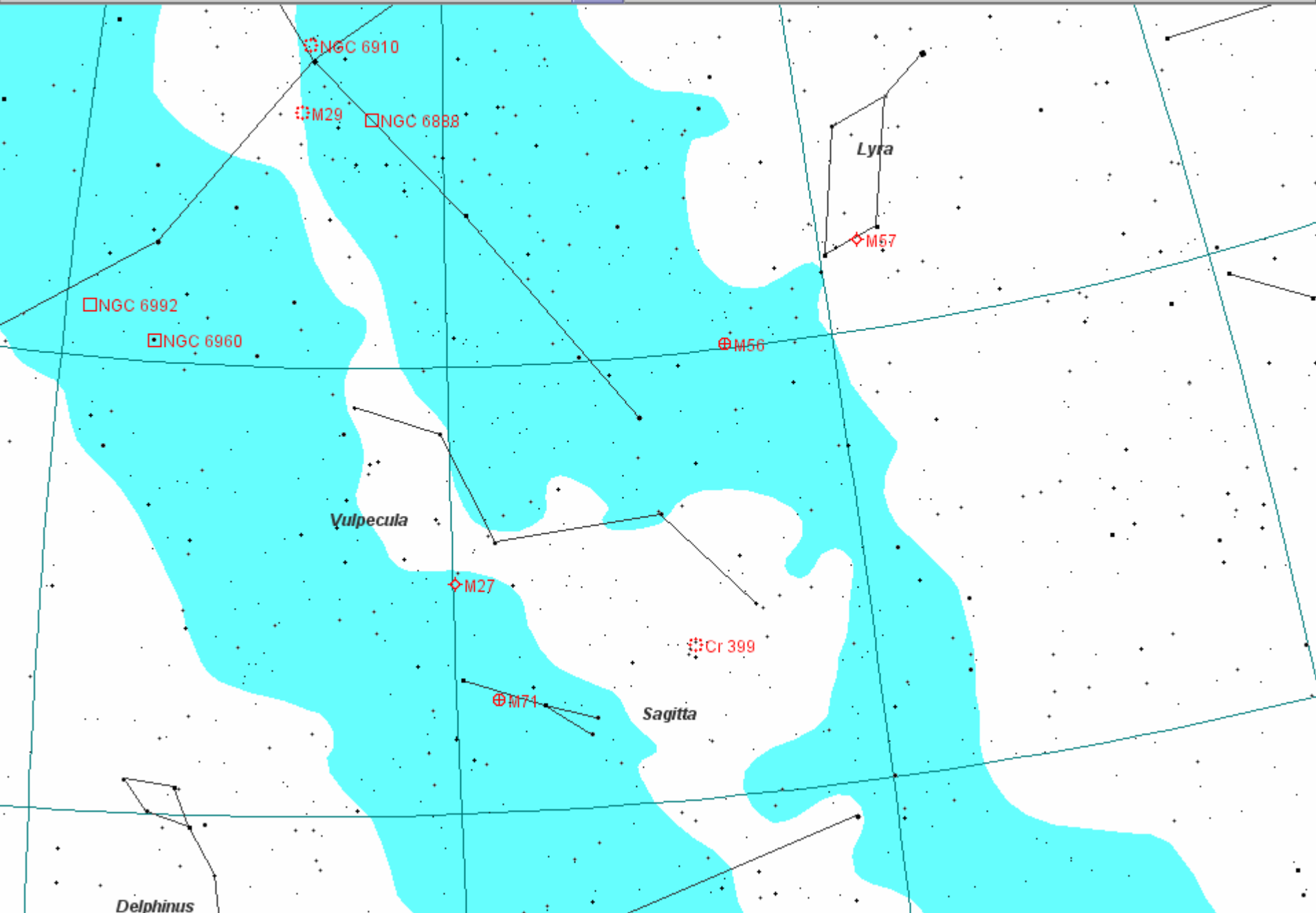


M71 – Globular Cluster
Constellation – Sagitta

NOAO/AURA/NSF

Right Ascension	19 : 53.8 (h:m)
Declination	+18 : 47 (deg:m)
Distance	13.0 (kly)
Visual Brightness	8.2 (mag)
Apparent Dimension	7.2 (arc min)

- Another one of those debatable ‘very rich open’ or ‘very loose globular’ clusters!
- Quite small – only about 30 LY across
- Located just south of the middle of the shaft of the ‘arrow’ of Sagitta

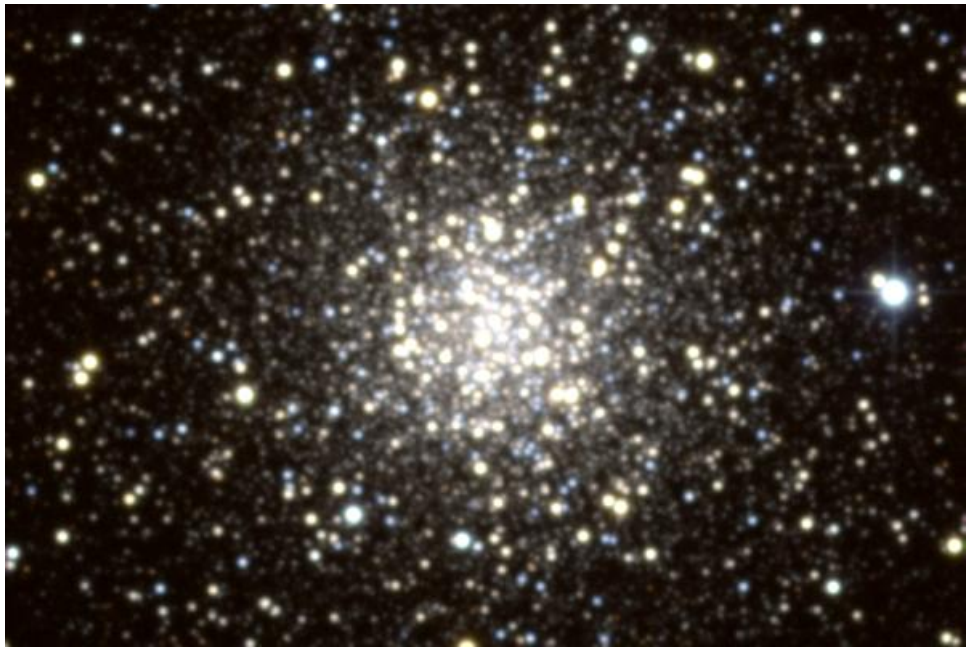
M27 – Planetary Nebula
Constellation – Vulpecula

Brian Kimball

Right Ascension	19 : 59.6 (h:m)
Declination	+22 : 43 (deg:m)
Distance	1.25 (kly)
Visual Brightness	7.4 (mag)
Apparent Dimension	8.0x5.7 (arc min)

- The famous ‘Dumbbell’ Nebula
- One of the largest and brightest planetary nebulae
- So-called because of their round shape – they have nothing to do with planets!
- We see M27 at its’ equatorial plane; if we saw it from one of its’ poles, it would probably look like the Ring nebula

M56 – Globular Cluster
Constellation – Lyra



NOAO/AURA/NSF

Right Ascension	19 : 16.6 (h:m)
Declination	+30 : 11 (deg:m)
Distance	32.9 (kly)
Visual Brightness	8.3 (mag)
Apparent Dimension	8.8 (arc min)

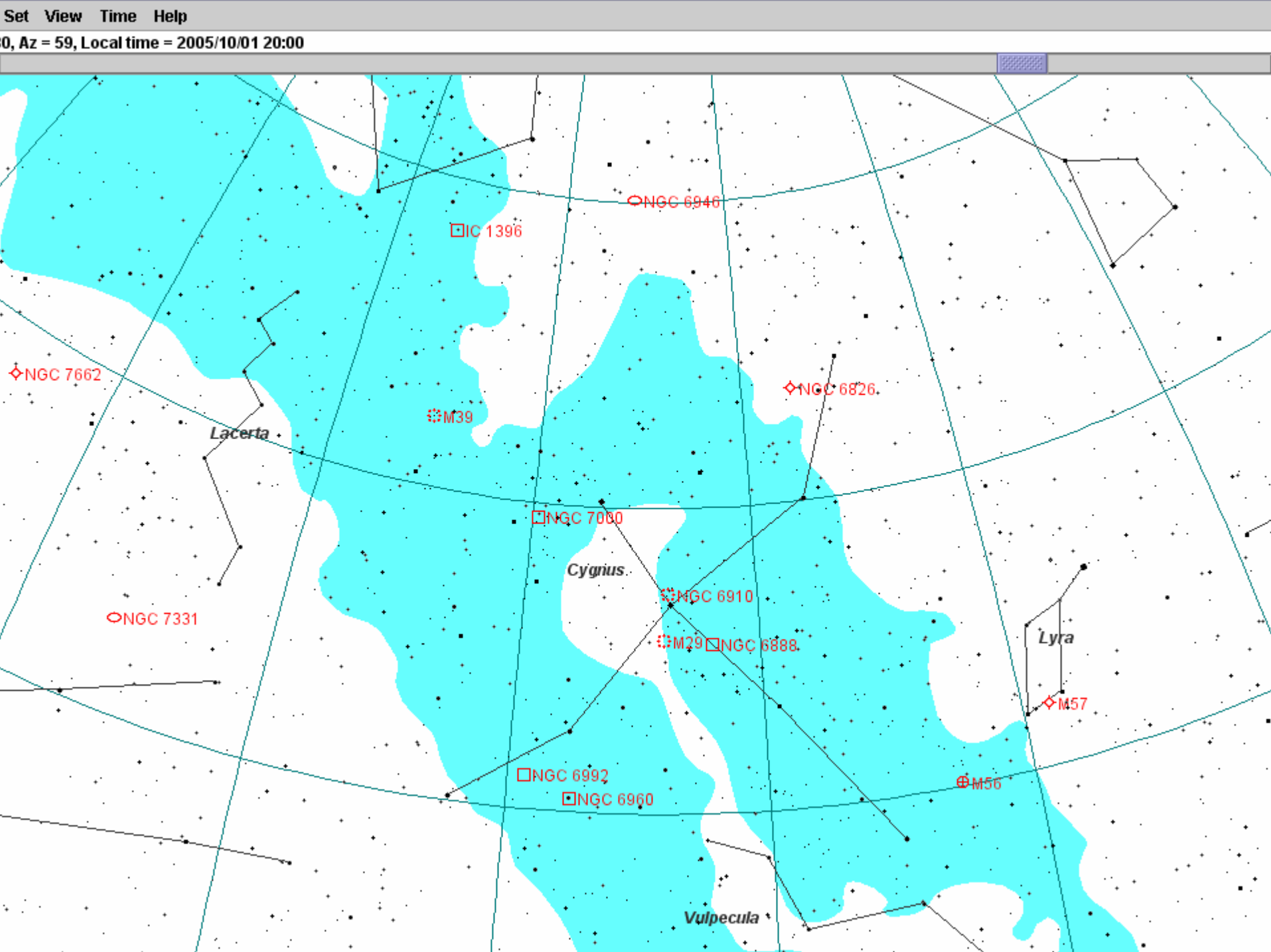
- Located ½ way between Albireo – the nose-star of Cygnus the Swan, and Sulaphat, the SE corner star of Lyra
- Fairly uniform and loose
- Discovered by Messier on the same night he found one of his comets – January 19, 1779.

M57 – Planetary Nebula
Constellation – Lyra

Brian Kimball

Right Ascension	18 : 53.6 (h:m)
Declination	+33 : 02 (deg:m)
Distance	2.3 (kly)
Visual Brightness	8.8 (mag)
Apparent Dimension	1.4x1.0(arc min)

- The ‘Ring’ Nebula – the most popular and best known example of a planetary nebula
- Diameter of a little under 1 LY
- Central star is 15th magnitude
- Takes high power very well under good conditions
- New research indicates it may not be spherical, but more toroidal or cylindrically shaped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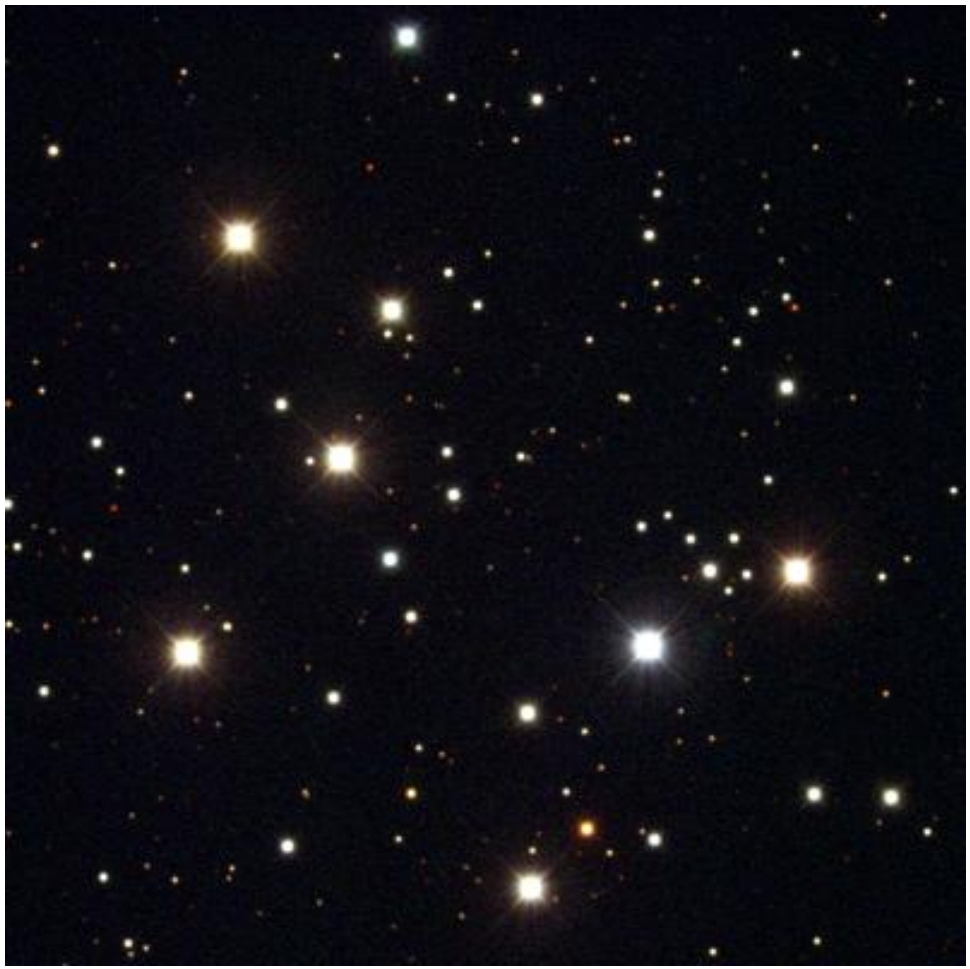
NGC 6946
IC 1396
NGC 7662
NGC 6826
M39
Lacerta
NGC 7080
Cygnus
NGC 6910
NGC 7331
M29
NGC 6888
Lyra
M57
NGC 6992
NGC 6960
M56
Vulpecula

M29 – Open cluster
Constellation – Cygnus

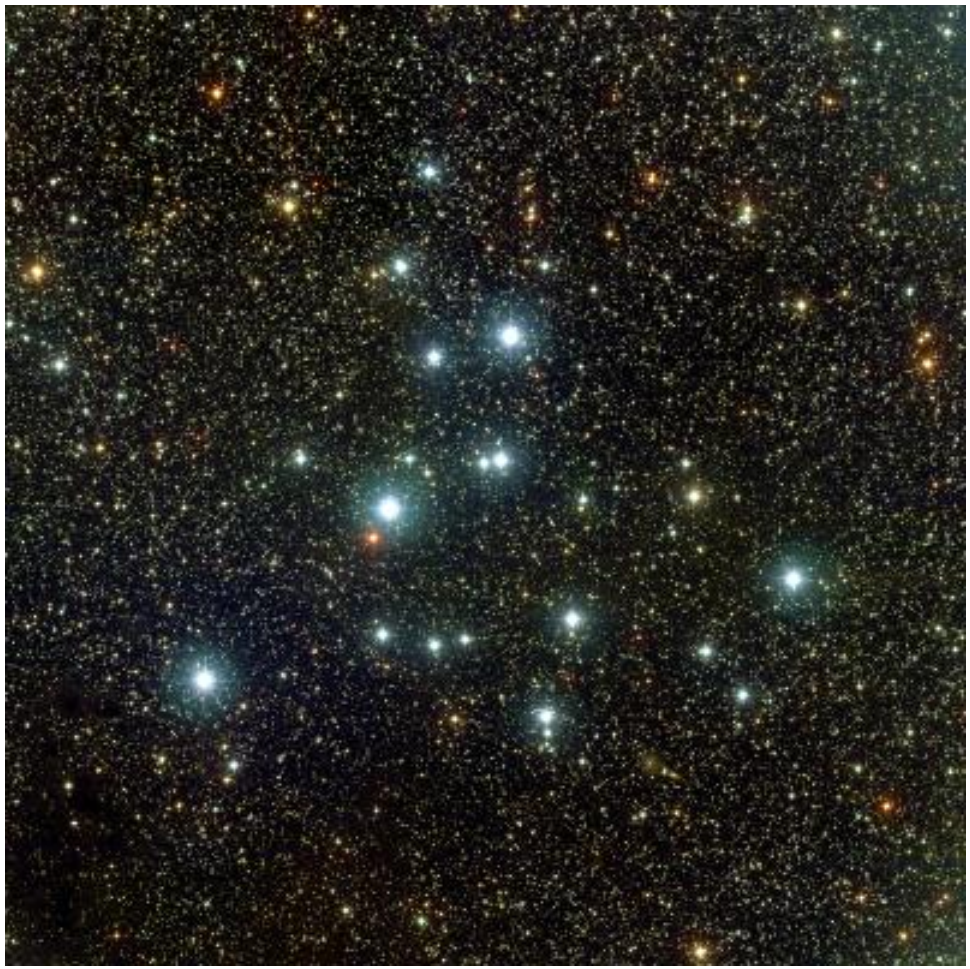


NOAO/AURA/NSF

Right Ascension	20 : 23.9 (h:m)
Declination	+38 : 32 (deg:m)
Distance	4.0 (kly)
Visual Brightness	7.1 (mag)
Apparent Dimension	7.0 (arc min)

- Rather trapezoidal-shaped with about a dozen 8^{th} to 9^{th} mag stars
- Located in a very busy part of the Cygnus Milky Way near Gamma Cygni, or the center star of the ‘cross’
- Would be 2 or 3 times brighter without the intervening galactic dust

M39 – Open Cluster
Constellation – Cygnus



NOAO/AURA/NSF

Right Ascension	21 : 32.2 (h:m)
Declination	+48 : 26 (deg:m)
Distance	0.825 (kly)
Visual Brightness	4.6 (mag)
Apparent Dimension	32.0 (arc min)

- Very large and loose - ~30 members
- Best viewed with binoculars or very low power eyepiece
- Triangular-shaped

Credits & Acknowledgements:

Star Maps:	Night Vision, courtesy of Brian Simpson
Text:	Burnhams Celestial Handbook National Optical Astronomy Observatory SEDS – University of Arizona
Photos:	Brian Kimball National Optical Astronomy Observatory